

Thuja orientalis L.

Tree in Chungsan Park, Peking

JOURNAL

OF THE

ARNOLD ARBORETUM

VOLUME XI

JULY, 1930

NUMBER 3

THUJA ORIENTALIS AND JUNIPERUS CHINENSIS

ERNEST H. WILSON

Plate 23

In volume VII, page 71, of "The Journal of the Arnold Arboretum" issued in April 1926 an account is given of Thuja orientalis Linn. and the article is illustrated by a plate. The text deals faithfully with T. orientalis but the plate, unfortunately, represents Juniperus chinensis Linn. This picture was one of many supplied to us by an old and esteemed friend of the Arboretum and was published in good faith. On its appearance Mr. J. Hers, another valued correspondent of the Arboretum, wrote pointing out that the picture did not represent the Oriental Arborvitae but the Chinese Juniper. We then got other correspondents in China to take photographs of the real T. orientalis and send them to us together with herbarium material from the actual tree of which photographs were made. The correspondence has taken considerable time but at last we are able to publish a picture depicting a magnificent old Thuja orientalis and thus correct the error inadvertently made four years ago.

At a glance the two trees look very different but it must be stated that we have pictures showing the Juniper in habit almost identical with the Thuja. The principal difference apparent is the nature of the bark; in the Juniper it is gray and fissured, whereas in the Arborvitae it is dull brownish red, flaking off in thin, fibrous sheets. The branches on old trees of the Arborvitae are ascending and spreading, wheareas in the Juniper the most usual position is for them to spread horizontally. In the grounds of the Temple of Heaven at Peking, in Central Park, and in the grounds of other old temples and palaces both trees have been planted and planted long, long ago. The Juniper is the more common of the two but both are about equally esteemed by the Chinese.

The history given in our note on page 73, volume VII, of the Journal covers both trees but the size of the particular tree mentioned has reference to J. chinensis. According to Dr. TenBroeck, trees of J. chinensis in Central Park measure 47 feet 4 inches in height with a trunk 18 feet $9\frac{1}{2}$ inches in girth at breast height and a crown spreading 48 feet. One in the Confucian Temple is 41 feet 10 inches in height with a trunk 16 feet 1 inch in girth and a crown spreading 45 feet 6 inches. Another in the grounds of the Temple of Heaven is 46 feet 7 inches in height with

a trunk 12 feet 6 inches in girth and a crown spreading 47 feet 8 inches. The tallest tree measured by Dr. TenBroeck is in Central Park and stands 51 feet 6 inches high with a trunk 14 feet 3 inches at breast height. The Thuja would appear to attain larger dimensions. That illustrated measures 57 feet tall with a girth of 21 feet. It is said to be over 600 years old and is growing in the Chungsan Park, Peking.

Both of these Conifers have long been known to cultivation in western lands, where both have given rise to polymorphous offspring much esteemed in horticulture. J. chinensis was known to Kaempfer and was also collected in China by J. Cunningham in 1701 as stated in Plukenet's "Amaltheum Botanicum," page 125 (1705). Linnaeus named it in his "Mantissa," page 127 (1767).

Although the Chinese Juniper is widely cultivated in China, being much planted in temple grounds and about graves, not once in my travels did I note a wild specimen. In many parts of Korea and Japan the dwarf growing J. chinensis Sargentii is common but the only place in which I have seen old trees of typical J. chinensis was on Dagelet Island in the Japan Sea; growing on the cliffs there and facing the full force of the sea were a number of fine old specimens. They were not tall, ranging from 20 to 35 feet in height with trunks 10 to 15 feet in girth and massive wide-spreading branches. They grow in humus filled cracks on the cliffs and must be of extreme age. The columnar habit of this tree is well known but like the Arborvitae when old age approaches its thinner branches are shed and a few of the thicker ones spread horizontally to form an open, widespreading, more or less rounded or flattened crown. Of course, close inspection of the two trees show wide differences not only in bark but especially in foliage and in fruit, but these are not obvious in a photograph.

THE SPREAD AND THE CONTROL OF PHACIDIUM BLIGHT IN SPRUCE PLANTATIONS

J. H. FAULL

In an earlier paper on Phacidium Blight (J. H. FAULL. A Fungus disease of Conifers related to the snow cover. Jour. Arnold Arb. x. 3–8. 1929) I dealt chiefly with its spread and control in the nurseries. Statistical observations and tests recorded therein showed that the spread of Phacidium Blight in the nursery is rapid if no preventive measures are employed, but that it can be fully controlled in seed beds and transplant lines by spraying with lime sulphur in the late fall. Corresponding data, though not as complete with respect to control, are now in hand relative to the blight in plantations.